

REMARKS

Responsive to the Office Action mailed February 13, 2008, Applicants respectfully request entry of the following amendments and remarks, and respectfully request reconsideration and allowance of claims .

Status of the claims

The Office Action Summary indicates that claims 1-36 are pending. However, Applicants note that in a Preliminary Amendment filed with the national stage entry on or about February 22, 2005, claims 27-30 were canceled. Accordingly, it is respectfully submitted that claims 1-26 and 31-36 were pending as of the February 13th mailing date of the Office Action. Applicants further note a second Preliminary Amendment was filed on or about July 13, 2007, in which claims 1-3, 5, 16, 17, 25, 26, and 31-36 were amended.

In the Feb. 13th Office Action:

Claims 1-9, 11-20, 22-27, and 29 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Doxsee et al., U.S. Pat. No. 6,765,237 (hereinafter "Doxsee");

Claims 1-9, 11-20, 22-27, 29, and 31-36 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Komoto et al., U.S. Pat. No. 6,340,824 (hereinafter "Komoto"); and

Claims 10, 21, 28, and 30 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Doxsee.

Again, Applicants note that claims 27-30 stand rejected – however, these claims were canceled in the Preliminary Amendment. In view of this, Applicants request that the Office verify that the two Preliminary Amendments filed on or about February 22, 2005 and on or about July 13, 2007 has been entered, and that the Office Action mailed February 13th examined the claims as presented in the latest July 13, 2007 Preliminary Amendment.

Doxsee is predated by Applicant's priority provisional application

The present application claims priority to PCT/US03/27363 filed August 29, 2003 and to provisional no. 60/407,426 filed August 30, 2002.

Doxsee issued July 20, 2004 and was filed January 15, 2003. According to PAIR, Doxsee does not claim any earlier priority date.

Accordingly, it is respectfully submitted that Doxide does not qualify as prior art under § 102(e) for those claims that are supported by provisional no. 60/407,426. The Office Action has not alleged that any claim of the present application is unsupported by provisional no. 60/407,426. Without such an allegation by the Office, it is respectfully submitted that all rejections based on Doxide are improper and should be withdrawn. See MPEP § 201.11.

If any claims continue to be rejected based on Doxide in the forthcoming Office Action, Applicants respectfully request that the Office specifically identify which (if any) claims are asserted to lack support from provisional no. 60/407,426, and ask that the forthcoming Office Action provide an explanation of the alleged lack of support or enablement, for example using form paragraph ¶2.10 set forth in MPEP § 201.11 with Examiner note [4] addressed.

**The claims present patentable subject matter
and should be allowed**

Claim 2 has been placed into independent form including the limitations of canceled base claim 1. Claim 2 recites an LED device comprising: a light emitting semiconductor; a cover over said semiconductor and spaced apart therefrom; and a phosphor layer contained within or coated on an inside or outer surface of said cover, wherein said inside surface of said cover has a surface area at least ten times the exposed surface area of the light emitting semiconductor.

In rejecting the subject matter of claim 2, the Office Action cites Doxide Fig. 3 and Komoto Fig. 35, without any citation to any written description of these figures. However, when a reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. MPEP § 2125. It is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue. *Id.* (citing *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000)).

It is therefore respectfully submitted that neither Doxide nor Komoto, nor their combination, disclose or fairly suggest the limitation of claim 2 wherein said inside surface of said cover has a surface area at least ten times the exposed surface area of the light emitting semiconductor.

Claims 3-15 as set forth herein depend directly or indirectly from claim 2. Accordingly, it is respectfully submitted that claims 2-15 present patentable subject matter, and should be allowed.

Claim 16 recites an LED device comprising: a light emitting semiconductor; a cover over said semiconductor and positioned apart from the light emitting semiconductor by a distance at least about two times the length of a longest side of said light emitting semiconductor; and a phosphor layer contained within or coated on an inside or outer surface of said cover.

In rejecting the subject matter of claim 16 relating to the distance being at least two times the length of a longest side of said light emitting semiconductor, the Office Action again cites Doxide Fig. 3 and Komoto Fig. 35, again without any citation to any written description of these figures. Again, the drawings of these references may not be relied on to show the dimensions recited in claim 16 where the specification of the references is completely silent on these dimensions. See MPEP § 2125.

It is respectfully submitted that neither Doxide nor Komoto, nor their combination, disclose or fairly suggest the limitation of claim 16 reciting a cover over said semiconductor and positioned apart from the light emitting semiconductor by a distance at least about two times the length of a longest side of said light emitting semiconductor. Accordingly, it is respectfully submitted that claim 16 presents patentable subject matter, and should be allowed.

Claim 23 has been placed into independent form including the limitations of canceled base claim 17. Claim 23 recites an LED device comprising: a light emitting semiconductor; a reflector supporting said light emitting semiconductor; a cover over said semiconductor and said reflector and spaced apart from said semiconductor; and a uniform thickness phosphor layer coated on at least a portion of said reflector and contained within or coated on an inside or outer surface of said cover, the light emitting semiconductor, reflector, cover, and phosphor layer defining an LED device having a package efficiency of 70% or greater.

Claim 23 stands rejected as allegedly anticipated by Doxide. However, it is respectfully submitted that claim 23 is fully supported by provisional no. 60/407,426 and accordingly this rejection under § 102(e) is improper. For example, Fig. 3 of provisional no. 60/407,426 illustrates a light emitting semiconductor (212); a reflector (216) supporting said light emitting semiconductor; a cover (218) over said semiconductor and said reflector and

spaced apart from said semiconductor; and a uniform thickness phosphor layer coated on at least a portion of said reflector and contained within or coated on an inside or outer surface of said cover [page 7 2nd full ¶], the light emitting semiconductor, reflector, cover, and phosphor layer defining an LED device having a package efficiency of 70% or greater [Table 1 and paragraph starting at bottom of page 7 and running onto page 8].

In rejecting claim 23 as allegedly anticipated by Komoto, the Office Action asserts that Komoto discloses the limitation of an LED device having a package efficiency of 70% or greater, but does not provide any citation to a passage in Komoto providing such disclosure. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable; the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified. MPEP § 706. Komoto includes 87 sheets of drawings and 74 columns of text. It is respectfully submitted that Komoto is a complex reference and shows or describes inventions other than those claimed in the present application. Accordingly, if the anticipation rejection of claim 23 based on Komoto is maintained in the forthcoming Office Action, Applicants respectfully request that the forthcoming Office Action identify where Komoto expressly or inherently discloses an LED device having a package efficiency of 70% or greater. If such express or inherent disclosure cannot be identified, then Applicants respectfully request that the anticipation rejection based on Komoto be withdrawn.

Claims 17-22 and 24 as set forth herein depend directly or indirectly from claim 23. Accordingly, it is respectfully submitted that claims 17-24 present patentable subject matter, and should be allowed.

Claim 25 recites a method for forming an LED device having a cover with a uniform phosphor coating, said method comprising the steps of: providing an LED mounted on a support; providing a cover sized to fit over or around said support; depositing a uniform thickness phosphor coating on a surface of said cover; and assembling said LED, mount and lens to form said LED device. **Claim 26** recites a method according to claim 25, wherein said step of depositing said phosphor on said cover comprises the substeps of: forming a slurry comprising phosphor powder, a solvent and a binder; optionally heating said cover to a temperature above room temperature; stamping, screening, dispensing, rolling, brushing or spraying said slurry onto said lens to achieve a uniform thickness coating layer; and curing said binder to form a permanent coating layer.

Claims 25 and 26 each stand rejected as anticipated by either Doxsee or Komoto. However, the Office Action does not identify where these references allegedly disclose each of the method operations recited in claims 25 and 26. For example, the assembling operation is not identified in either reference. It is again respectfully requested that if these rejections are maintained, that the forthcoming Office Action identify where Doxsee and/or Komoto disclose each process limitation recited in claim 25 and 26. If such identification is not provided, Applicants respectfully request withdrawal of the anticipation rejections of these claims, and respectfully request allowance of claims 25 and 26.

Claim 31 has been amended to recite the limitation that the phosphor layer has an area greater than about ten times an exposed surface area of the light emitting semiconductor. This amendment is supported in the original specification at least at page 12 lines 5-8, and in provisional no. 60/407,426 at least at page 7 1st full paragraph.

Claim 31 stands rejected as allegedly anticipated by Komoto. However, Komoto does not disclose or fairly suggest the phosphor layer having an area greater than about ten times an exposed surface area of the light emitting semiconductor.

Claim 36 recites a LED device according to claim 31 in which the cover is easily detachable from said LED device such that additional covers containing different phosphor mixes or amounts can be installed to easily adjust the light color temperature, CIE and CRI without changing the light emitting semiconductors. Claim 36 stands rejected as allegedly anticipated by Komoto, but the Office Action does not identify where Komoto allegedly discloses expressly or inherently the limitations recited in claim 36.

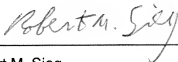
Accordingly, it is respectfully submitted that claims 31-36 present patentable subject matter, and should be allowed.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that claims 2-16, 18-26, and 31-36 (i.e., all claims as set forth herein) present patentable subject matter and are in condition for allowance. Accordingly, Applicants respectfully request allowance of the application including all claims set forth herein.

In the event that telephonic contact is deemed advantageous to expediting allowance of this application, the Examiner is authorized to telephone the undersigned at (216) 861-5582.

Respectfully Submitted,
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